

Final Visual Presentation  
for the degree of  
Master of Visual Arts

*Industrial Design*

**Gregory H. Kasa**

1978





T H E   U N I V E R S I T Y   O F   A L B E R T A

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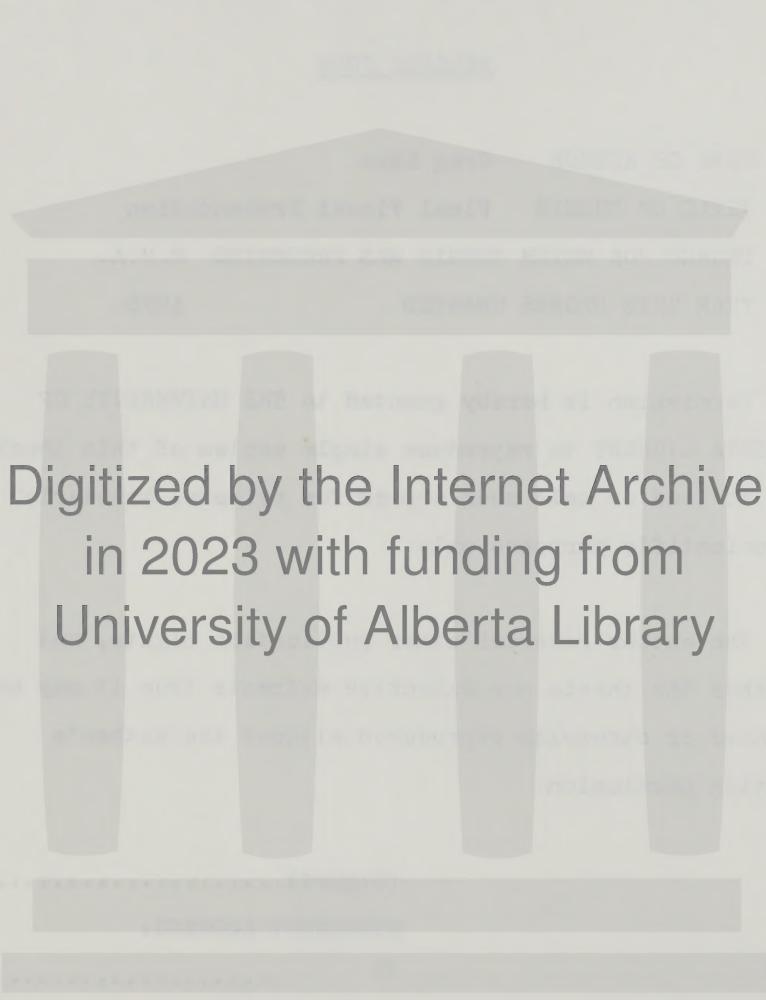
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THE UNIVERSITY OF ALBERTA

FINAL VISUAL PRESENTATION

by

Greg Kasa

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE

OF

MASTER OF VISUAL ARTS

IN

INDUSTRIAL DESIGN

DEPARTMENT OF ART AND DESIGN

EDMONTON, ALBERTA

FALL, 1978



THE UNIVERSITY OF ALBERTA  
FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned certify that they have read, and  
recommend to the Faculty of Graduate Studies and Research, for  
acceptance, a thesis entitled:

Final Visual Presentation

submitted by ..... Gregory H. Kasa .....

in partial fulfilment of the requirements for the degree of  
Master of Visual Arts.

Date: ..... AUG 10, 1978 .....





# SIGNAGE

## BRIEF

The Exterior Signage Project for the University of Alberta involved building identification and an information Kiosk.

Total budget for the project is in excess of \$30,000.<sup>00</sup>.  
Designer's fees (the author) was \$2470.<sup>00</sup>

Coordinator (Academic Staff) Walter Junkind  
Dept. Art & Design  
University of Alberta

Coordinator, Campus Development Office  
Blake Pratt  
Landscape Architect  
University of Alberta

The Exterior Signage Project was undertaken by the Campus Development Office. Its main objective was to provide adequate directional information to pedestrians, particularly new students on campus, students attending night classes and of course visitors.

As the designer, my responsibilities included all phases of design from the concept through to production model. Many meetings were held between Blake Pratt, Walter Junkind and myself and meetings with the Campus Development Committee were also necessary to assure a satisfactory result.

The project was initiated in the Summer of 1974.  
Design 1974 to January 1976.  
Production November 1976 to March 1977.  
Final Installation late 1977.



# AGRICULTURAL TRACTOR

## BRIEF

This project was taken to the prototype stage which was demonstrated on presentation day. (Aug.10/78)

The prototype is the result of a five year study including: a review of related research papers and reference material, models, mock-ups, and finally the prototype.

The primary objective of the project is to improve the ergonomics of the operator work space and general functional utility of the agricultural tractor.

Design considerations include: operator orientation to tractor and related equipment, placement of controls, noise, visibility, tractor versatility, maintenance, feasibility of manufacture, economics and aesthetics.

## FEATURES OF PROTOTYPE

- |                |   |
|----------------|---|
| Rotating Cabin | - allows operator to choose an infinite range of positions (maximum 50 degrees right of center and 180 degrees left)<br>- tractor may be used in push or pull |
| Suspension     | - rotating cabin fixed in vertical axis with suspension limited to vertical direction   |
| Noise          | - cabin isolated from power train<br>- controls by flexible linkages  |

(over)



- Maintenance
- cabin suspended in roll frame which may be tilted backwards off power train (90 degrees)
  - time required for tilting about 15 min.

Tractor Versatility- tractor may be used in push or pull configuration

The rotating cabin enhances the man/machine interface by improving the operator's vantage point to draft equipment (through partial rotation) and allows some equipment to be rear mounted ie. loaders, swathers, etc. and used in push configuration (through 180 degree rotation) greatly increasing visibility.

Noise is reduced by maximizing cabin isolation and utilizing flexible linkages.

Overall capital investment in equipment could be potentially reduced for the farmer by the increased use of P.T.O. combines and swathers.

Maintenance costs may be reduced by the short time (15 min.) to remove simultaneously the cabin and controls leaving the power train virtually free of encumberances.



# SLIDES

## UNIVERSITY SIGNAGE

1. INFORMATION KIOSK WITH MAP AND POSTER  
(SHOWN ON COVER OF FOLIO OCTOBER 1975-SEE SAMPLE A)
2. MOCK-UP KIOSK (SUMMER 1975)
3. SIGN-POST-IDENTIFICATION ON THREE SIDES
4. SIGN-POST SHOWN WITH KIOSK

## NOTMONDE

5. NEWS RELEASE- INFORMATION ABOUT NOTMONDE-SEE SAMPLE B
6. BROCHURE- HANDOUT AT HOME SHOW 1975- SEE SAMPLE C
7. GROUP OF ACTORS FROM DRAMA DEPARTMENT PREPARING FOR  
A TRIAL RUN AT ART WORKSHOP I, U. OF A. CAMPUS
8. SETTING UP AT HOME SHOW
9. SUGAR BOWL SEA (INTERIOR)
10. MUSIC ROOM (INTERIOR) FEATURING MS. QUIZZEL
11. SILENT CAVE
12. NOTMONDE

## AGRICULTURAL TRACTOR WITH ROTATING CABIN

EARLY CONCEPTS TO MOCK-UP OF CONTROL STATION

13. FIRST SKETCHES
14. "
15. CONTROL STATION
16. " ILLUSTRATION
17. CONTROL CHART- A SYSTEM TO ESTABLISH CONTROL  
PLACEMENT ON BASIS OF PRIORITY
18. "
19. CONTROL PLACEMENT



20. FINAL CONTROL LAYOUT      YELLOW - HYDRAULICS  
                                  BLUE - BRAKES  
                                  GREEN LT. - GEARSHIFT  
                                  RED - CLUTCH  
                                  GREEN DK. - THROTTLE  
                                  PURPLE - P.T.O.  
                                  RED LGE. OVAL - STEERING
21. FULL SCALE MOCK-UP OF CONTROL STATION
22. EXAMPLE OF POOR CONTROL LAYOUT
23. "

STATE OF THE ART TO 1975

24. TRADITIONAL TWISTED POSITION EXPERIENCED BY VIRTUALLY ALL AGRICULTURAL TRACTOR OPERATORS
25. OPERATOR EXPERIENCES MUCH IMPROVED ERGONOMIC POSITION ON SELF-PROPELLED EQUIPMENT
26. AWKWARD POSITION A TRADITION (1950)
27. EVEN PLOUGHING WITH OXEN DIDN'T NECESSITATE TWISTING AROUND TO SEE IMPLEMENT
28. FARMER ATTEMPT TO IMPROVE VISIBILITY AND FUNCTION BY REAR MOUNTING LOADER (1970)
29. TRACTOR WITH REAR MOUNTED SNOW BLOWER  
(NOTE : OPERATOR TWISTING)
30. GERMAN PUSH/PULL TRACTOR (1975)
31. REAR - MOUNTED LOADER (1975)
32. INDUSTRIAL LOADER - SEE OPERATOR ORIENTATION
33. P.T.O. SWATHER (1978)
34. SELF-PROPELLED COMBINE (1978)  
(SEE SAMPLE D - PICTURES TAKEN DURING PRESENTATION AUGUST 10, 1978)



## EMPHASIS ON NOISE - SAFTEY - CONTROLS

35. MODERN SAFTEY CABIN WITH REDUCED NOISE AND IMPROVED CONTROL LAYOUT (J.I.CASE CO. 1978)
36. CONTROL LAYOUT (DEERE AND CO. 1978)
37. ROLL OVER ACCIDENT (1971) NON-PROTECTIVE CANOPY
38. ROLL OVER TESTS WITH PROTECTIVE CANOPY
39. "
40. DEERE CABIN (1978)
41. " NOISE REDUCTION TECHNIQUE
42. " ISOLATION MOUNTS

## MODEL - DRAWINGS

43. MODEL ON IHC 1066 POWER TRAIN  
(MODEL COMPLETED JANUARY 1976)
44. PLAN VIEW OF ROTATING CABIN
45. ELEVATION OF TILTING CABIN/ROLL FRAME
46. ELEVATION SHOWING REAR MOUNT LOADER

## PROTOTYPE

47. POWER TRAIN FROM OPERATOR SEAT
48. ENGINE SHROWD
49. FIRST ATTEMPT - MECHANISM FOR ROTATING CABIN
50. ALL LIGHT METAL WORK WAS TIG WELDED
51. CARDBOARD WAS USED TO FINALIZE SHAPES
52. ROLL FRAME / CABIN
53. GEAR CHANGER
54. SUSPENSION
55. " CLOSE - UP
56. PROTOTYPE - NEAR COMPLETION (JULY 1978)





